Permit #: **#28.3302-07**

Effective Date: **Draft**

Expiration Date: **Draft**

SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

MINOR AIR QUALITY OPERATING PERMIT

Steven M Pirner, Secretary
Department of Environment and Natural Resources

Under the South Dakota Air Pollution Control Regulations

Pursuant to Chapter 34A-1-21 of the South Dakota Codified Laws and the Air Pollution Control Regulations of the State of South Dakota and in reliance on statements made by the owner designated below, a permit to operate is hereby issued by the Secretary of the Department of Environment and Natural Resources. This permit authorizes such owner to operate the source unit(s) at the location designated below and under the listed conditions.

A. Owner

1. Company Name and Mailing Address

Manitou Americas, Inc.
900 Ferdig Avenue
Yankton, South Dakota 57078

2. Actual Source Location if Different from Above

3. Permit Contact

Tony Wiese, Manufacturing Engineering Manager
(605) 668-2458

4. Facility Contact

Tony Wiese, Manufacturing Engineering Manager
(605) 668-2458

5. Responsible Official

Dan Miller, President
(262)334-6618

B. Permit Revisions or Modifications

C. Type of Operation

Manitou Americas, Inc. manufactures telescopic handlers, compact articulate loaders, compact track loaders, and asphalt pavers.

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1.0 Standard Conditions

1.1 Operation of source

In accordance with Administrative Rules of South Dakota (ARSD) 74:36:04:15(9), the owner or operator shall operate the units, controls, and processes as described in Table 1-1 in accordance with the statements, representations, and supporting data contained in the complete permit application received July 19, and August 24, 2011, unless modified by the conditions of this permit. Except as otherwise provided herein, the control equipment shall be operated at all times in accordance with the manufacturer's specification and in a manner that achieves compliance with the conditions of this permit. The application consists of the application forms, supporting data, and supplementary correspondence. If the owner or operator becomes aware it failed to submit any relevant facts in a permit application or submitted incorrect information in an application, such information shall be promptly submitted.

Table 1-1 – Description of Permitted Units, Operations, and Processes

Unit	Description	Maximum Operating Rate	Control Device
#1	Paint Booth #1 – 2006 Spray Equipment & Service Center, model number DDI-24-PDT-S, with air-atomized electrostatic paint guns.	Not applicable	2006 Global Finishing baghouse
#2	Primer Booth #1 – 2006 Spray Equipment & Service Center, model number DDI-24-PDT-S, with air-atomized electrostatic paint guns.	Not applicable	
#3	Touch-Up Booth #1 – Paint application booth with air-atomized electrostatic paint guns.	Not applicable	Fabric filters
#4	Process Heater – Natural gas furnace for Paint Booth #1.	6.65 million Btus per hour heat input	Not applicable
#5	Process Heater – Natural gas furnace for Primer Booth #1.	6.65 million Btus per hour heat input	Not applicable

1.2 Duty to comply

In accordance with ARSD 74:36:04:15(12), the owner or operator shall comply with the conditions of this permit. An owner or operator who knowingly makes a false statement in any record or report or who falsifies, tampers with, or renders inaccurate, any monitoring device or method is in violation of this permit. A violation of any condition in this permit is grounds for enforcement, reopening this permit, permit termination, or denial of a permit renewal

application. The owner or operator, in an enforcement action, cannot use the defense that it would have been necessary to cease or reduce the permitted activity to maintain compliance. The owner or operator shall provide any information requested by the Secretary to determine compliance or whether cause exists for reopening or terminating this permit. This permit does not waive compliance with federal, state, or local laws and ordinances.

1.3 Property rights or exclusive privileges

In accordance with ARSD 74:36:04:15(12), the State's issuance of this permit, adoption of design criteria, and approval of plans and specifications does not convey any property rights of any sort, any exclusive privileges, any authorization to damage, injure or use any private property, any authority to invade personal rights, any authority to violate federal, state or local laws or regulations, or any taking, condemnation or use of eminent domain against any property owned by third parties. The State does not warrant the owner's or operator's compliance with this permit, design criteria, approved plans and specifications, and operation under this permit, will not cause damage, injury or use of private property, an invasion of personal rights, or violation of federal, state or local laws or regulations. The owner or operator is solely and severally liable for all damage, injury or use of private property, invasion of personal rights, infringement of federal, state or local laws and regulations, or taking or condemnation of property owned by third parties, which may result from actions taken under the permit.

1.4 Penalty for violating a permit condition

In accordance with South Dakota Codified Laws (SDCL) 34A-1-39 and 34A-1-47, a violation of a permit condition may subject the owner or operator to civil or criminal prosecution, a state penalty of not more than $10,000 per day per violation, injunctive action, administrative permit action, and other remedies as provided by law.

1.5 Inspection and entry

In accordance with SDCL 34A-1-41, the owner or operator shall allow the Secretary, upon presentation of credentials, to:

1. Enter the premises where a regulated activity is located or where pertinent records are stored;
2. Have access to and copy any records required under this permit;
3. Inspect operations regulated under this permit; and/or
4. Sample or monitor any substances or parameters for the purpose of assuring compliance.

1.6 Severability

In accordance with ARSD 74:36:04:15(11), any portion of this permit that is void or challenged shall not affect the validity of the remaining permit requirements.

1.7 Permit termination, modification, or revocation

In accordance with ARSD 74:36:04:27, the Secretary may recommend that the Board of Minerals and Environment terminate, modify, or revoke this permit for violations of SDCL 34A-1 or the federal Clean Air Act or for nonpayment of any outstanding enforcement penalty.

2.0 Permit Amendments and Modifications

2.1 Permit flexibility

In accordance with ARSD 74:36:04:18, the owner or operator shall have the flexibility to make changes to the source during the term of this permit. The owner or operator shall provide the Secretary written notice at least seven days in advance of the proposed change (NOTE: The Secretary will forward a copy of the written notice to EPA). The written notice shall include a brief description of the change, the date on which the change is to occur, any change in emissions, the proposed changes to the permit, and whether the requested revisions are for an administrative permit amendment, minor permit amendment, or permit modification.

The Secretary will notify the owner or operator whether the change is an administrative permit amendment, a minor permit amendment, or a permit modification. A proposed change that is considered an administrative permit amendment or a minor permit amendment can be completed immediately after the Secretary receives the written notification. The owner or operator must comply with both the applicable requirements governing the change and the proposed permit terms and conditions until the Secretary takes final action on the proposed change.

A proposed change that is considered a modification cannot be implemented until the Secretary takes final action on the proposed change or the owner or operator was issued an air quality construction permit. Permit modifications are subject to the same procedural requirements, including public comment, as the original permit issuance except that the required review shall cover only the proposed changes.

2.2 Administrative permit amendment

In accordance with ARSD 74:36:04:20, the Secretary has 15 days from receipt of a written notice to verify the proposed change is an administrative permit amendment. As provided in ARSD 74:36:01:03, the Secretary considers a proposed change an administrative permit amendment if the proposed change accomplishes one of the following:

1. Corrects typographical errors;
2. Changes the name, address, or phone number of any person identified in this permit or provides a similar minor administrative change;
3. Requires more frequent monitoring or reporting;
4. The ownership or operational control changes and the Secretary determines no other change in this permit is necessary. However, the new owner must submit a certification of applicant form and a written statement specifying the date for transfer of operating permit responsibility, coverage, and liability; or

5. Any other changes the Secretary and the administrator of EPA determines to be similar to those requirements in this condition.

2.3 Minor permit amendment

In accordance with ARSD 74:36:04:20.04, the Secretary has 90 days from receipt of a written notice to take final action on a minor permit amendment. Final action consists of issuing or denying a minor permit amendment or determining the proposed change is a permit modification. As provided in ASRD 74:36:04:20:02, the Secretary considers a proposed change to be a minor permit amendment if the proposed change:

1. Does not violate any applicable requirements;
2. Does not involve significant changes to existing monitoring, reporting, or recordkeeping requirements;
3. Does not require or change a case-by-case determination of an emission limit or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; or
4. Does not seek to establish or change a permit term or condition for which the source has assumed to avoid an applicable requirement, a federally enforceable emission cap, or an alternative emission limit. An alternative emission limit is approved pursuant to regulations promulgated under section 112(i)(5) of the federal Clean Air Act.

2.4 Permit modification

In accordance with ARSD 74:36:04:21, an owner or operator may apply for a permit modification. A permit modification is defined in ARSD 74:36:01:10 as a physical change in or change in the operation of a source that results in at least one of the following:

1. An increase in the amount of an air pollutant emitted by the source or results in the emission of an air pollutant not previously emitted;
2. A significant change to existing monitoring, reporting, or recordkeeping requirements in the permit;
3. The change requires or changes a case-by-case determination of an emission limit or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; or
4. The change seeks to establish or change a permit term or condition for which there is a corresponding underlying applicable requirement that the source has assumed to avoid an applicable requirement, a federally enforceable emissions cap assumed to avoid classification as a modification under a provision of the Title I of the Clean Air Act, or an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Clean Air Act.

Permit modifications are subject to the same procedural requirements, including public comment, as the original permit issuance except the required review shall cover only the proposed changes.

2.5 Permit revision

In accordance with ARSD 74:36:04:23, the Secretary may reopen and revise this permit to meet requirements of SDCL 34A-1 or the federal Clean Air Act. In accordance with ARSD 74:36:04:24, the Secretary shall notify the owner or operator at least 30 days before reopening this permit. The 30-day period may be less in the case of an emergency.

2.6 Testing new fuels or raw materials

In accordance with ARSD 74:36:11:04, an owner or operator may request permission to test a new fuel or raw material to determine if it is compatible with existing equipment before requesting a permit amendment or modification. A complete test proposal shall consist of the following:

1. A written proposal describing the new fuel or raw material, operating parameters, and parameters that will be monitored and any testing associated with air pollutant emissions during the test;
2. An estimate of the type and amount of regulated air pollutant emissions resulting from the proposed change; and
3. The proposed schedule for conducting the test. In most cases the owner or operator will be allowed to test for a maximum of one week. A request for a test period longer than one week will need additional justification. A test period shall not exceed 180 days.

The Secretary shall approve, conditionally approve, or deny in writing the test proposal within 45 days after receiving a complete proposal. Approval conditions may include changing the test schedule or pollutant sampling and analysis methods. Pollutant sampling and analysis methods may include, but are not limited to performance testing, visible emission evaluation, fuel analysis, dispersion modeling, and monitoring of raw material or fuel rates.

If the Secretary determines the proposed change will result in an increase in the emission of a regulated air pollutant or result in the emission of an additional regulated air pollutant, the Secretary shall give public notice of the proposed test for 30 days. The Secretary shall consider all comments received during the 30-day public comment period before making a final decision on the test.

The Secretary will not approve a test if the test would cause or contribute to a violation of a national ambient air quality standard.

3.0 Permit Renewal

3.1 Permit effective

In accordance with ARSD 74:36:04:05, this permit shall expire five years from date of issuance unless reopened or terminated for cause.

3.2 Permit renewal

In accordance with ARSD 74:36:04:06, the owner or operator shall submit an application for a permit renewal at least 90 days before the date of permit expiration if the owner or operator wishes to continue to operate an activity regulated by this permit. The current permit shall not expire and shall remain in effect until the Secretary takes final action on the timely permit renewal application.

3.3 Permit expiration

In accordance with ARSD 74:36:04:16, permit expiration terminates the owner's or operator's right to operate any unit covered by this permit.

4.0 Recordkeeping and Reporting

4.1 Recordkeeping and reporting

In accordance with ARSD 74:36:04:15(10), the owner or operator shall maintain all monitoring data, records, reports, and pertinent information specified by this permit for five years from the date of sample, measurement, report, or application unless otherwise specified in this permit. The records shall be maintained on site for the first two years and may be maintained off site for the last three years. All records must be made available to the Secretary for inspection. All notifications and reports shall be submitted to the following address:

South Dakota Department of Environment and Natural Resources
PMB 2020, Air Quality Program
523 E. Capitol, Joe Foss Building
Pierre, SD 57501-3182

4.2 Signatory requirements

In accordance with ARSD 74:36:04:07, all applications submitted to the Secretary shall be signed and certified by a responsible official. A responsible official for a corporation is a responsible corporate officer and for a partnership or sole proprietorship is a general partner or the proprietor, respectively. All reports or other information submitted to the Secretary shall be signed and certified by a responsible official or a duly authorized representative. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Secretary; and
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

The responsible official shall notify the Secretary if an authorization is no longer accurate. The new duly authorized representative must be designated prior to or together with any reports or information to be signed by a duly authorized representative.

4.3 Certification statement

In accordance with ARSD 74:36:04:15(10), all documents required by this permit, including application forms, reports, and compliance certification, must be certified by a responsible official or a duly authorized representative. The certification shall include the following statement:

> "I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document and all attachments are true, accurate, and complete."

4.4 Reporting permit violations

In accordance with ARSD 74:36:04:15(10), the owner or operator shall report all permit violations. A permit violation should be reported as soon as possible, but no later than the first business day following the day the violation was discovered. The permit violation may be reported by telephone to the South Dakota Department of Environment and Natural Resources at (605) 773-3151 or by FAX at (605) 773-4068.

A written report shall be submitted within five days of discovering the permit violation. Upon prior approval from the Secretary, the submittal deadline for the written report may be extended up to 30 days. The written report shall contain:

1. A description of the permit violation and its cause(s);
2. The duration of the permit violation, including exact dates and times; and
3. The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the permit violation.

The Secretary may waive the written report on a case-by-case basis if the oral report has been received within the reporting period and dependent upon the severity of the permit violation.

4.5 Record keeping requirements.

In accordance with ARSD 74:36:04:15(10), the owner or operator shall calculate the amount of hazardous air pollutants and volatile organic compounds emitted each month. The amount of hazardous air pollutants and volatile organic compounds emissions from the paint booths shall be based on the amount of products used each month and the composition of the product based on the material safety data sheets, manufacturer supplied formulation data, EPA approved test method data, or a method approved by the Secretary.

4.6 Annual reporting.

In accordance with ARSD 74:36:04:15(10), the owner or operator shall submit an annual report to the Secretary by the end of the calendar quarter. The annual report shall contain the following information:

1. Name of facility, permit number, reference to this permit condition, identifying the submittal as an annual report and calendar dates covered in the reporting period;
2. The quantity of hazardous air pollutants, in tons, emitted in the calendar year and supporting documentation;
3. The quantity of volatile organic compounds, in tons, emitted in the calendar year and supporting documentation; and
4. A copy of the MSDS, manufacturer supplied formulation data, or EPA approved test method data for any product used at the facility during the calendar year that has not been previously submitted to the Secretary.

The annual report must be postmarked no later than 30 days after the end of the calendar year (January 30).

5.0 Control of Regulated Air Pollutants

5.1 Visibility limit

In accordance with ARSD 74:36:12:01, the owner or operator may not discharge into the ambient air an air contaminant of a density equal to or greater than that designated as 20 percent opacity from any permitted unit, operation, or process listed in Table 1-1, unless otherwise specified in this permit. This provision does not apply when the presence of uncombined water is the only reason for failure to meet the requirement.

5.2 Visibility exceedances.

In accordance with ARSD 74:36:12:02, an exceedance of the operating limit in permit condition 5.1 is not considered a violation during brief periods of soot blowing, start-up, shutdown, or malfunctions. Malfunction means any sudden and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. A failure caused entirely or in part by poor maintenance, careless operation, preventable equipment breakdown, or any other cause within the control of the owner or operator is not a malfunction and is considered a violation.

5.3 Total suspended particulate matter limits.

In accordance with ARSD 74:36:06:02(1), the owner or operator shall not allow the emission of total suspended particulate matter in excess of the emission limit specified in Table 5-1 for the appropriate permitted unit, operation, and process.

Table 5-1 – Total Suspended Particulate Matter Emission Limit

Unit	Description	Emission Limit

Unit	Description	Emission Limit
#4	Process Heater – Natural gas furnace for Paint Booth #1	0.6 pounds per million Btu heat input
#5	Process Heater – Natural gas furnace for Primer Booth #1	0.6 pounds per million Btu heat input

5.4 Sulfur dioxide limits

In accordance with ARSD 74:36:06:02(2), the owner or operator shall not allow the emission of sulfur dioxide in excess of the emission limit specified in Table 5-2 for the appropriate permitted unit, operations, and process.

Table 5-2 – Sulfur Dioxide Emission Limit

Unit	Description	Emission Limit
#4	Process Heater – Natural gas furnace for Paint Booth #1	3.0 pounds per million Btu heat input
#5	Process Heater – Natural gas furnace for Primer Booth #1	3.0 pounds per million Btu heat input

Compliance with the sulfur dioxide emission limit is based on a three-hour rolling average, which is the arithmetic average of three contiguous one-hour periods.

5.5 Circumvention not allowed

In accordance with ARSD 74:36:04:31, the owner or operator may not install, use a device, or use a means that conceals or dilutes an air emission that would otherwise violate this permit. This includes operating a unit or control device that emits air pollutants from an opening other than the designed stack, vent, or equivalent opening.

5.6 Minimizing emissions

In accordance with ARSD 74:36:08:03, as referenced to 40 CFR § 63.6(e)(1)(i), the owner or operator shall at all times, including periods of startup, shutdown, and malfunction, operate and maintain any permitted unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires the owner or operator to reduce emissions from the permitted unit to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Secretary which may include, but is not limited to, monitoring results, review of operation and maintenance

procedures (including a startup, shutdown, and malfunction plan, if required), review of operation and maintenance records, and inspection of the operation.

6.0 Performance Tests

6.1 Performance test may be required

In accordance with ARSD 74:36:11:02, the Secretary may request a performance test during the term of this permit. A performance test shall be conducted while operating the unit at or greater than 90 percent of its maximum design capacity, unless otherwise specified by the Secretary. A performance test conducted while operating less than 90 percent of its maximum design capacity will result in the operation being limited to the percent achieved during the performance test. The Secretary has the discretion to extend the deadline for completion of performance test required by the Secretary if circumstances reasonably warrant but will not extend the deadline past a federally required performance test deadline.

6.2 Test methods and procedures

In accordance with ARSD 74:36:11:01, the owner or operator shall conduct the performance test in accordance with 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M. The Secretary may approve an alternative method if a performance test specified in 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M is not federally applicable or federally required.

6.3 Representative performance test

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.8(c), performance tests shall be conducted under such conditions as the Secretary shall specify to the owner or operator based on the representative performance of the unit being tested. The owner or operator shall make available to the Secretary such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in this permit.

6.4 Submittal of test plan

In accordance with ARSD 74:36:11:01, the owner or operator shall submit the proposed testing procedures to the Secretary at least 30 days prior to any performance test. The Secretary will notify the owner or operator if the proposed test procedures are approved or denied. If the proposed test procedures are denied, the Secretary will provide written notification outlining what needs to be completed for approval.

6.5 Notification of test

In accordance with ARSD 74:36:11:03, the owner or operator shall notify the Secretary at least 10 days prior to the start of a performance test to arrange for an agreeable test date when the

Secretary may observe the test. The Secretary may extend the deadline for the performance test in order to accommodate schedules in arranging an agreeable test date.

6.6 Performance test report

In accordance with ARSD 74:36:04:15(10), the owner or operator shall submit a performance test report to the Secretary within 60 days after completing the performance test or by a date designated by the Secretary. The performance test report shall contain the following information:

1. A brief description of the process and the air pollution control system being tested;
2. Sampling location description(s);
3. A description of sampling and analytical procedures and any modifications to standard procedures;
4. Test results represented in the same terminology as the permit limits;
5. Quality assurance procedures and results;
6. Records of operating conditions during the test necessary for demonstrating compliance with the permit limits, preparation of standards, and calibration procedures;
7. Raw data sheets for field sampling and field and laboratory analyses;
8. Documentation of calculations;
9. All data recorded and used to establish parameters for compliance monitoring; and
10. Any other information required by the test method.

7.0 AREA SOURCE MACT FOR NINE METAL FABRICATION

Chapter 7.0 applies to the dry abrasive blasting, machining, dry grinding/dry polishing, spray painting, and/or welding activities that use a material that contains a metal fabrication or finishing metal hazardous air pollutant. A material that contains a metal fabrication or finishing metal hazardous air pollutant means a material that contains cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), and contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material. If a material that contains a metal fabrication or finishing metal hazardous air pollutant used within one operation such as the dry abrasive blasting does not make the other operations applicable if those operations do not contain a metal fabrication or finishing metal hazardous air pollutant.

Dry Abrasive Blasting Standards

7.1 Dry Abrasive Blasting Standards and Management Practices

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11516(a)(1), (2), and (3); the owner or operator shall comply with the following standards and management practices:

1. Dry abrasive blasting chambers that are totally enclosed and unvented must implement the following management practices to minimize emissions of metal fabrication or finishing metal hazardous air pollutant:
    a. Minimize dust generation during emptying of abrasive blasting enclosures; and
    b. Operate all equipment associated with dry abrasive blasting operations according to the manufacturer's instructions.
2. Dry abrasive blasting operations which have a vent allowing any air or blast material to escape, must comply with the requirements in paragraphs (2)(a) and (b). Dry abrasive blasting operations for which the items to be blasted exceed 8 feet (2.4 meters) in any dimension, may be performed subject to the requirements in paragraph (3).
    a. Emissions must be captured and vented to a filtration control device. The filtration control device must be operated in accordance with the manufacturer's instructions, and a record of the manufacturer's specifications for the filtration control devices must be maintained as specified in permit condition 7.12 paragraph 9; and
    b. Implement management practices to minimize emissions of metal fabrication or finishing metal hazardous air pollutant as follows:
        i. Minimize excess dust in the surrounding area to reduce metal fabrication or finishing metal hazardous air pollutant emissions, as practicable;
        ii. Enclose dusty abrasive material storage areas and holding bins, seal chutes and conveyors used to transport abrasive materials; and
        iii. Operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions.
3. When conducting dry abrasive blasting operations on objects greater than 8 feet (2.4 meters) in any one dimension, the owner or operator may implement the following management practices to minimize emissions of metal fabrication or finishing metal hazardous air pollutants instead of those specified paragraph 2:
    a. Minimize excess dust in the surrounding area to reduce metal fabrication or finishing metal hazardous air pollutant emissions, as practicable;
    b. Enclose abrasive material storage areas and holding bins, seal chutes and conveyors that transport abrasive material;
    c. Operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions;
    d. The re-use of dry abrasive blasting media is prohibited unless contaminants (i.e., any material other than the base metal, such as paint residue) have been removed by filtration or screening, and the abrasive material conforms to its original size; and
    e. If practicable, use low particulate matter (PM)-emitting blast media (e.g., crushed glass, specular hematite, steel shot, aluminum oxide.

4. The owner or operator shall perform visual determinations of fugitive emissions, as follows:
    a. The visual determinations shall be conducted as noted in permit condition 7.7;
    b. For abrasive blasting of objects greater than 8 feet (2.4 meters) in any one dimension that is performed outdoors, a visual determination of fugitive emissions must be performed at

the fence line or property border nearest to the outdoor dry abrasive blasting operation;

c. For abrasive blasting of objects greater than 8 feet (2.4 meters) in any one dimension that is performed indoors, a visual determination of fugitive emissions at the primary vent, stack, exit, or opening from the building containing the abrasive blasting operations must be performed;
d. Keep a record of all visual determinations of fugitive emissions and any corrective actions taken as outlined in permit condition 7.12 paragraphs 3, 4, and 5;
e. If visible fugitive emissions are detected, the owner or operator shall perform corrective actions to eliminate any fugitive emissions.
f. Follow-up inspections for visible fugitive emissions must be in accordance with permit condition 7.6; and
g. All instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions, must be reported with the annual certification and compliance report as required by permit condition 7.11 paragraphs 4, 5, and 6.

Standards for Machining

7.2 Machining Management Practices.

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11516(b), the owner or operator shall implement management practices as follows:

1. The owner or operator of a machining affected source must take measures necessary to minimize excess dust in the surrounding area to reduce metal fabrication or finishing metal hazardous air pollutant emissions, as practicable; and
2. All equipment associated with machining must be operated according to manufacturer's instructions.

Standards for Dry Grinding and Dry Polishing with Machines

7.3 Standards for Dry Grinding and Dry Polishing with Machines.

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11516(c), the owner or operator shall implement management practices as follows:

1. Capture emissions and vent them to a filtration control device. Compliance with this requirement shall be demonstrated by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in permit condition 7.12 paragraph 9;
2. Minimize excess dust in the surrounding area to reduce metal fabrication or finishing metal hazardous air pollutant emissions, as practicable; and
3. Operate all equipment associated with the operation of dry grinding and dry polishing with machines, including the filtration control device, according to manufacturer's instructions.

Standards for Spray Painting

7.4 Spray Painting Controls.

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11516(d), the owner or operator of a spray painting affected source shall comply with the following requirements:

1. All spray-applied painting of objects must meet the following requirements. These requirements do not apply to affected sources that spray paint objects greater than 15 feet (4.57 meters) that are not spray painted in spray booths or spray rooms.
   a. Spray booths or spray rooms must have a full roof, at least two complete walls, and one or two complete side curtains or other barrier material so that all four sides are covered. The spray booths or spray rooms must be ventilated so that air is drawn into the booth and leaves only though the filter. The roof may contain narrow slots for connecting fabricated products to overhead cranes, and/or for cords or cables; and
   b. All spray booths or spray rooms must be fitted with a type of filter technology that is demonstrated to achieve at least 98 percent capture of metal fabrication or finishing metal hazardous air pollutants. The procedure used to demonstrate filter efficiency must be consistent with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992". The test coating for measuring filter efficiency shall be a high-solids bake enamel delivered at a rate of at least 135 grams per minute from a conventional (non-High Volume Low Pressure) air-atomized spray gun operating at 40 psi air pressure; the air flow rate across the filter shall be 150 feet per minute. Owners and operators may use published filter efficiency data provided by filter vendors to demonstrate compliance with this requirement and are not required to perform this measurement; and
   c. The owner or operator shall perform regular inspection and replacement of the filters in all spray booths or spray rooms according to manufacturer's instructions, and maintain documentation of these activities, as detailed in permit condition 7.12 paragraph 10; or
   d. The owner or operator may use in lieu of the spray booths or spray rooms specified in (a) through (c), spray booths or spray rooms equipped with a water curtain, called "waterwash" or "waterspray" booths or spray rooms that are operated and maintained according to the manufacturer's specifications and that achieve at least 98 percent control of metal fabrication or finishing metal hazardous air pollutants.
2. All paints applied via spray-applied painting must be applied with a high-volume, low-pressure (HVLP) spray gun, electrostatic application, airless spray gun, air-assisted airless spray gun, or an equivalent technology that is demonstrated to achieve transfer efficiency comparable to one of these spray gun technologies for a comparable operation, and for which written approval has been obtained from the Administrator. The procedure used to demonstrate that spray gun transfer efficiency is equivalent to that of an HVLP spray gun must be equivalent to the California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" and "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray

Guns, September 26, 2002", Revision 0;

3. The owner or operator must maintain documentation of the HVLP or other high transfer efficiency spray paint delivery methods, as detailed in permit condition 7.12 paragraph 12;
4. All cleaning of paint spray guns must be done with either non-hazardous air pollutant gun cleaning solvents, or in such a manner that an atomized mist of spray of gun cleaning solvent and paint residue is not created outside of a container that collects the used gun cleaning solvent. Spray gun cleaning may be done by hand cleaning of parts of the disassembled gun in a container of solvent, by flushing solvent through the gun without atomizing the solvent and paint residue, or by using a fully enclosed spray gun washer. A combination of these non-atomizing methods may also be used;
5. All workers performing painting must be certified that they have completed training in the proper spray application of paints and the proper setup and maintenance of spray equipment. The minimum requirements for training and certification are described in paragraph 6. The spray application of paint by non-certified persons is prohibited. These requirements do not apply to the students of an accredited painting training program who are under the direct supervision of a certified instructor. These requirements do not apply to operators of robotic or automated painting operations;
6. The owner or operator of an affected source shall operate a training program that includes, at a minimum:
    a. A list of all current personnel by name and job description who are required to be trained;
    b. Hands-on, or in-house or external classroom instruction that addresses initial and refresher training in the following topics:
        i. Spray gun equipment selection, set up, and operation, including measuring paint viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate;
        ii. Spray technique for different types of paints to improve transfer efficiency and minimize paint usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke;.
        iii. Routine spray booth and filter maintenance, including filter selection and installation; and
        iv. Environmental compliance with the requirements of this subpart.
    c. A description of the methods to be used at the completion of initial or refresher training to demonstrate, document, and provide certification of successful completion of the required training. Alternatively, owners or operators who can show by documentation or certification that a painter's work experience and/or training has resulted in training equivalent to the required training are not required to provide the initial training required to these painters;
7. The owner or operator shall maintain records of employee training certification for use of HVLP or other high transfer efficiency spray paint delivery methods in accordance with permit condition 7.12 paragraph 13;
8. All new personnel must be trained within 180 days after hiring. Worker training that was completed within 5 years prior to the hire date that meets the requirements specified in

paragraph (6)(b), satisfies this requirement and is valid for a period not to exceed 5 years after the date the training is completed.

9. Training and certification will be valid for a period not to exceed 5 years after the date the training is completed. All personnel must receive refresher training that meets the requirements of this section and be re-certified every 5 years.

Standards for Welding

7.5 Welding Standards.

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11516(f), the owner or operator of a welding affected source must comply with the requirements in paragraphs (1) and (2) for each welding operation that uses materials that contain metal fabrication or finishing metal hazardous air pollutants. If 2,000 pounds or more per year of welding rod containing one or more metal fabrication or finishing metal hazardous air pollutants (calculated on a rolling 12-month basis) are used, the owner or operator shall demonstrate that management practices or fume control measures are being implemented by complying with the requirements in paragraphs (3) through (8). The requirements in paragraphs (1) through (8) of this section do not apply when welding operations are being performed that do not use any materials containing metal fabrication or finishing metal hazardous air pollutants or do not have the potential to emit metal fabrication or finishing metal hazardous air pollutants.

1. All equipment, capture, and control devices associated with welding operations must be operated according to manufacturer's instructions. The owner or operator must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the capture and control devices, as specified by the requirements in permit condition 7.12 paragraph 9;
2. The owner or operator shall implement one or more of the following management practices to minimize emissions of metal fabrication or finishing metal hazardous air pollutants, as practicable, while maintaining the required welding quality through the application of sound engineering judgment.
    a. Use welding processes with reduced fume generation capabilities (e.g., gas metal arc welding (GMAW)—also called metal inert gas welding (MIG));
    b. Use welding process variations (e.g., pulsed current GMAW), which can reduce fume generation rates;
    c. Use welding filler metals, shielding gases, carrier gases, or other process materials which are capable of reduced welding fume generation;
    d. Optimize welding process variables (e.g., electrode diameter, voltage, amperage, welding angle, shield gas flow rate, travel speed) to reduce the amount of welding fume generated; and
    e. Use a welding fume capture and control system, operated according to the manufacturer's specifications.
3. The owner or operator shall perform visual determinations of welding fugitive emissions as specified in permit condition 7.7 at the primary vent, stack, exit, or opening from the building

containing the welding operations. Records of all visual determinations of fugitive emissions along with any corrective action taken in accordance with the requirements in permit condition 7.12 paragraphs 3, 4, and 5 must be maintained.

4. If visible fugitive emissions are detected during any visual determination required in paragraph (3), the owner or operator shall conduct the following:
    a. Perform corrective actions that include, but are not limited to, inspection of welding fume sources and evaluation of the proper operation and effectiveness of the management practices or fume control measures implemented in accordance with paragraph (2). After completing such corrective actions, the owner or operator must perform a follow-up inspection for visible fugitive emissions in accordance with permit condition 7.6 at the primary vent, stack, exit, or opening from the building containing the welding operations.
    b. Report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions, and submit with the annual certification and compliance report as required by permit condition 7.11 paragraphs 4, 5, and 6.
5. If visible fugitive emissions are detected more than once during any consecutive 12 month period (notwithstanding the results of any follow-up inspections), the owner or operator must comply with the following:
    a. Within 24 hours of the end of the visual determination of fugitive emissions in which visible fugitive emissions were detected, a visual determination of emissions opacity at the primary vent, stack, exit, or opening from the building containing the welding operations must be conducted;
    b. In lieu of the requirement of paragraph (3) to perform visual determinations of fugitive emissions with EPA Method 22, you must perform visual determinations of emissions opacity in accordance with permit condition 7.9, using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations;
    c. A record of each visual determination of emissions opacity along with any subsequent corrective action in accordance with permit condition 7.12 paragraphs 6, 7, and 8; and
    d. The results of all visual determinations of emissions opacity performed in accordance with this section, along with any subsequent corrective action taken, must be included and submitted with the annual certification and compliance report as required by permit condition 7.11 paragraphs 7, 8, and 9;
6. Requirements for opacities less than or equal to 20 percent but greater than zero. For each required visual determination of emissions opacity performed for which the average of the six-minute average opacities recorded is 20 percent or less but greater than zero, the owner or operator must perform corrective actions, including inspection of all welding fume sources, and evaluation of the proper operation and effectiveness of the management practices or fume control measures implemented in accordance with paragraph (2).
7. For each visual determination of emissions opacity performed for which the average of the six-minute average opacities recorded exceeds 20 percent, the owner or operator must comply with the following requirements:
    a. Submit a report of exceedence of 20 percent opacity with the annual certification and compliance report, as specified in permit condition 7.11 paragraph 10;

b. Within 30 days of the opacity exceedence, prepare and implement a Site-Specific Welding Emissions Management Plan or, if a Site-Specific Welding Emissions Management Plan has been prepared, prepare and implement a revised Site-Specific Welding Emissions Management Plan within 30 days;
c. During the preparation (or revision) of the Site-Specific Welding Emissions Management Plan, continue to perform visual determinations of emissions opacity, using EPA Method 9 on a daily schedule as specified in permit condition 7.9, at the primary vent, stack, exit, or opening from the building containing the welding operations;
d. The owner or operator must maintain records of daily visual determinations of emissions opacity performed in accordance with paragraph (7)(c), during preparation of the Site-Specific Welding Emissions Management Plan, in accordance with permit condition 7.12 paragraph 14;
e. The owner or operator must include these records in the annual certification and compliance report, according to the requirements of permit condition 7.11.

8. The Site-Specific Welding Emissions Management Plan must comply with and contain the following information:
   a. Company name and address;
   b. A list and description of all welding operations which currently comprise the welding affected source;
   c. A description of all management practices and/or fume control methods in place at the time of the opacity exceedence;
   d. A list and description of all management practices and/or fume control methods currently employed for the welding affected source;
   e. A description of additional management practices and/or fume control methods to be implemented pursuant to paragraph (7)(b), and the projected date of implementation;
   f. Any revisions to a Site-Specific Welding Emissions Management Plan must contain copies of all previous plan entries, pursuant to paragraphs (8)(d) and (e) of this section;
   g. The Site-Specific Welding Emissions Management Plan must be updated annually to contain current information, as required by paragraphs (a) through (c), and submitted with the annual certification and compliance report, according to the requirements of permit condition 7.11; and
   h. The owner or operator shall maintain a copy of the current Site-Specific Welding Emissions Management Plan in a readily-accessible location for inspector review, in accordance with the requirements in permit condition 7.12, paragraph 15.

Other Requirements

7.6 <u>Visual determination requirements.</u>

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11517(a)**,** the owner or operator shall perform visual determinations of fugitive emissions according to the procedures of Method 22, of 40 CFR part 60, Appendix A. Method 22 test must be conducted while the affected source is operating under normal conditions. The duration of each EPA Method 22 test must be at least 15 minutes, and visible emissions will be considered to be present if they are

detected for more than six minutes of the fifteen minute period.

7.7 Visual determination graduated schedule.

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11517(b)**, v**isual determinations of fugitive emissions must be performed in accordance with permit condition 7.6 and according to the following schedule:.

1. Perform a visual determination of fugitive emissions once per day, on each day the process is in operation, during operation of the process;
2. If no visible fugitive emissions are detected in 10 consecutive daily Method 22 tests of the process, the Method 22 testing may be decreased to once every five days of operation of the process (one calendar week). If visible fugitive emissions are detected during these tests, then the Method 22 testing of that operation reverts back to daily, in accordance with paragraph 1;
3. If no visible fugitive emissions are detected in four consecutive weekly Method 22 tests, then the owner or operator may decrease the frequency of the Method 22 testing to once per 21 days of operation of the process (one calendar month). If visible fugitive emissions are detected during these tests, the owner or operator must resume weekly Method 22 testing in accordance with paragraph 2; or
4. If no visible fugitive emissions are detected in three consecutive monthly Method 22 tests, then the owner or operator may decrease the frequency of the Method 22 testing to once per 60 days of operation of the process (3 calendar months). If visible fugitive emissions are detected during these tests, the owner or operator must resume monthly Method 22 testing in accordance with paragraph 3.

7.8 Opacity determination requirements.

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11517(c), opacity determinations must be performed in accordance with the procedures of Method 9, 40 CFR part 60, Appendix A, and while the affected source is operating under normal conditions. The duration of the Method 9 test shall be thirty minutes.

7.9 Opacity deteminations graduated schedule.

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11517(d), opacity determinations must be performed in accordance with permit condition 7.8 and according to the following schedule:.

1. Perform a visual determination of emissions opacity once per day during each day that the process is in operation;
2. If the average of the six minute opacities recorded during 10 daily consecutive Method 9 tests does not exceed 20 percent, the Method 9 testing may be decreased to once per five days of consecutive work day operation (one calendar week). If opacity greater than 20 percent is detected during any of these tests, the owner or operator must resume testing every day of operation of the process according to the requirements of paragraph 1;
3. If the average of the six minute opacities recorded during four consecutive weekly Method 9 tests does not exceed 20 percent, the Method 9 testing may be decreased to once per every 21 days of operation of the process (one calendar month). If opacity greater than 20 percent is

detected during any monthly test, the owner or operator must resume testing every five days of operation of the process according to the requirements of paragraph 2;

4. If the average of the six minute opacities recorded during three consecutive monthly Method 9 tests does not exceed 20 percent, the Method 9 testing may be decreased to once per every 120 days of operation of the process (4 calendar months). If opacity greater than 20 percent is detected during any quarterly test, the owner or operator must resume testing every 21 days (monthly) of operation of the process according to the requirements of paragraph 3; or
5. In lieu of paragraph 4, if the average of the six minute opacities recorded during two consecutive monthly Method 9 tests does not exceed 20 percent, the owner or operator may resume Method 22 testing as noted in permit condition 7.7 paragraphs (3) and (4).

7.10 Initial Notification.

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11519(a), the owner or operator shall submit the Initial Notification no later than 120 days after initial startup. The Initial Notification must provide the following information:

1. The name, address, phone number and e-mail address of the owner and operator;
2. The address (physical location) of the affected source;
3. The date of the notification:
4. An identification of the relevant standard;
5. A brief description of the type of operation. For example, a brief characterization of the types of products (e.g., aerospace components, sports equipment, etc.), the number and type of processes, and the number of workers usually employed; and
6. A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this section.

7.11 Submission of Annual Certification and Compliance Report.

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11519(b), the owner or operator shall submit an annual certification and compliance report for each affected source. The first annual certification and compliance report must cover the first annual reporting period which begins the day after the compliance date and ends on December 31. Each subsequent annual certification and compliance report must cover the subsequent annual reporting period from January 1 through December 31. Each annual certification and compliance report must be prepared and submitted no later than January 31 and a copy kept on-site for review.

Each annual certification and compliance report shall contain the following information:

1. Company name and address;
2. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
3. Date of report and beginning and ending dates of the reporting period. The reporting period is the 12-month period ending on December 31. Note that the information reported for the 12

months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

4. The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;
5. A description of the corrective actions taken subsequent to the test; and
6. The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.
7. The date of every visual determination of emissions opacity;
8. The average of the six-minute opacities measured by the opacity test;
9. A description of any corrective action taken subsequent to the opacity test;
10. The date of each opacity exceedance determined for the welding operations and the average six-minute opacity recorded during the exceedance as noted in permit condition 7.5 paragraph 7;
11. A copy of the records of daily visual determinations of emissions recorded in accordance with permit condition 7.5 paragraph 7; and
12. A copy of the site specific welding emissions management plan and any subsequent revisions to the plan as outlined in permit condition 7.5 paragraph 8.

7.12 Recordkeeping.

In accordance with ARSD 74:36:08:119, as referenced to 40 CFR § 63.11519(c), the owner or operator shall maintain the following records as follows:

1. Each notification and report and the documentation supporting each notification and report;
2. Records of the equipment covered by this chapter must be maintained for 5 years;
3. The date and results of every visual determination of fugitive emissions;
4. A description of any corrective action taken subsequent to the test;
5. The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions;
6. The date of every visual determination of emissions opacity;
7. The average of the six-minute opacities measured by the opacity test;
8. A description of any corrective action taken subsequent to the opacity test;
9. A record of the manufacturer's specifications for any control devices used to comply with applicable standards and management practices;
10. A record of the filter efficiency demonstrations and spray paint booth filter maintenance activities as required for spray painting objects in spray booths or spray rooms.
11. Waterspray booth or water curtain efficiency tests;
12. Maintain documentation of manufacturer's specifications for HVLP or other high transfer efficiency spray paint delivery systems. This documentation must include the equipment and any manufacturer's operation instructions;
13. Maintain certification that each worker performing spray painting operations has completed the specified training with the date the initial training and the most recent refresher training was completed;

14. A record of each visual determination of emissions opacity performed during the preparation or revision of a Site-Specific Welding Emissions Management Plan as outlined in permit condition 7.5 paragraph 7;
15. A copy of the current Site-Specific Welding Emissions Management Plan as outlined in permit condition 7.5;
16. If you comply with this subpart by operating any equipment according to the manufacturer's instructions, a copy of the instructions must be made readily available for inspector review;
17. Records demonstrating welding rod usage on a rolling 12-month basis must be maintained if the owner or operator uses less than 2,000 pounds per year of welding rod (on a rolling 12-month basis);

    The records must be maintained in a form suitable and readily available for expeditious review. Each record must be retained for 5 years following the date of each occurrence, measurement, corrective action, report, or record. Records shall be kept on-site for at least 2 years after the date of each occurrence, measurement, corrective action, report, or record and then may be maintained off-site for the remaining 3 years.

8.0 Recommendation

A review of this facility indicates it can operate in compliance with South Dakota's Air Pollution Control rules and the federal Clean Air Act. The Secretary, therefore, recommends that the Board of Minerals and Environment issue this minor air quality operating permit with conditions to ensure compliance with SDCL 34A-1 and the federal Clean Air Act. Any questions pertaining to the Secretary's recommendation should be directed to Marlys Heidt, Engineer III, at (605) 773-3151.